CHEMISTRY SAFETY SELF TEST

University of Evansville Department of Chemistry

How To Take This Test

Have a sheet of paper and pencil ready.

Write down your answers to questions that may include true/false, multiple choice, and/or fill-in-the-blank.

At the end of the test, you will find the answers so that you can grade yourself.

If you did not get 100%, then re-take the test.

Sign and date your final test and bring it with you to your first lab session.

Safety goggles should be worn

- a. Only when handling acids.
- b. Only when you feel unsafe.
- c. At all times in the laboratory, unless otherwise instructed.
- d. Only when working in the fume hood.

What is the proper way to test the odor of a chemical?

- a. Always let your instructor test for odors.
- Place your nose directly over the opening of the container and inhale deeply so that you can adequately smell the odor.
- c. You should never test the odor of a chemical under any circumstances.
- d. Carefully waft the odor toward your nose so that you can smell the chemical.

Any liquid spill that occurs in the lab should be contained and absorbed using

- a. Lots of paper towels.
- b. Kitty litter (or equivalent absorber).
- c. Anything that is handy, like your lab partners jacket.
- d. Any solid chemical that may be in the lab.

Any personal belongings (coats, backpacks, etc) that you bring to lab belong

- a. On the floor next to your feet.
- b. On the tables or benches where you work.
- c. You can leave belongings anywhere you like; it really doesn't matter.
- d. In the designated shelf or cabinet in the lab.

When diluting a concentrated acid with water you

- a. Should add water to the acid while stirring.
- b. Should add the acid to water while stirring.
- c. Add a base to neutralize the acid first, then add to water.
- d. Never add acid and water together because they do not mix.

Small fires in a beaker should be

- a. Extinguished with lots of water.
- b. Smothered with a watch glass.
- c. Smothered with your hands.
- d. Extinguished with alcohol.

Acid spills should be neutralized with

- a. Vinegar.
- b. Bicarbonate (baking soda).
- c. Salt.
- d. Sulfuric acid.

Reactions involving the liberation of poisonous or noxious gases should be carried out

- a. Only by an instructor, never a student.
- b. In a fume hood.
- c. By an open window.
- d. While holding your breath.

What should you do with excess or leftover chemical reagents after an experiment?

- a. Put them back in the bottle and recycle. You do not want to waste anything.
- b. Give them to the lab assistant to take care of.
- c. Through them in the trash can when no one is looking.
- d. Never return to the original bottle; dispose of it properly as indicated by your lab instructor.

Suppose you were weighing out some potassium carbonate and you spilled some of the solid chemical on your arm. What should you do?

- a. Panic. Scream for help. Call EMS.
- b. Nothing, because potassium carbonate is harmless.
- c. Wash with soap and water after you get back to your dorm room.
- d. Calmly walk to the sink, brush off excess with a paper towel, and rinse with copious amounts of water. When finished, inform your lab instructor.

Which of the following items would be considered necessary and appropriate attire for working in the lab.

- a. Pants with holes
- b. Short or long-sleeved shirts.
- c. Tank tops
- d. Pants
- e. Socks
- f. Sandals
- g. Shorts
- h. Closed-toed and closed-topped shoes
- i. Mid-length to short skirts

Question 12 True/False

All safety rules must be followed at all times.

Question 13 True/False

Loose clothing or dangling jewelry are allowed while working in the lab.

Question 14 True/False

As long as you clean up spills yourself, your instructor doesn't need to know about it.

Question 15 True/False

Accommodations are available for those that are disabled.

Question 16 True/False

It is alright to eat and drink in the lab so long as it doesn't interfere with your experiment.

Question 17 True/False

Soap is necessary in rinsing off chemicals that you have spilled on exposed skin.

Question 18 True/False

When your experiment is done, you can leave lab because you have no other duties and responsibilities.

Question 19 True/False

Take as much chemical as you want. There is plenty to go around. If you have extra, you can always put it back in the bottle.

Question 20 True/False

Do not switch lids to reagent bottles because doing so may result in cross-contamination.

Question 21 True/False

There are eyewash stations available in all teaching labs.



Before opening a reagent bottle, read and ____ labels on the bottles to ensure you have the correct chemical.



When someone has been exposed to chemicals on their body or eyes, it is standard procedure to rinse the affected area with water for at least _____ minutes.

When someone has been drenched with a chemical, he/she must go to the nearest _____ and begin rinsing with water immediately.

If you are cut or burned in lab, let your instructor know so that he/she can use the _____ kit to assist you.

ANSWERS TO SAFETY SELF-TEST

Safety goggles should be worn

- a. Only when handling acids.
- b. Only when you feel unsafe.
- c. At all times in the laboratory, unless otherwise instructed.
- d. Only when working in the fume hood.

What is the proper way to test the odor of a chemical?

- a. Always let your instructor test for odors.
- Place your nose directly over the opening of the container and inhale deeply so that you can adequately smell the odor.
- c. You should never test the odor of a chemical under any circumstances.
- d. Carefully waft the odor toward your nose so that you can smell the chemical.

Any liquid spill that occurs in the lab should be contained and absorbed using

- a. Lots of paper towels.
- b. Kitty litter (or equivalent absorber).
- c. Anything that is handy, like your lab partners jacket.
- d. Any solid chemical that may be in the lab.

Any personal belongings (coats, backpacks, etc) that you bring to lab belong

- a. On the floor next to your feet.
- b. On the tables or benches where you work.
- c. You can leave belongings anywhere you like; it really doesn't matter.
- d. In the designated shelf or cabinet in the lab.

When diluting a concentrated acid with water you

- a. Should add water to the acid while stirring.
- b. Should add the acid to water while stirring.
- c. Add a base to neutralize the acid first, then add to water.
- d. Never add acid and water together because they do not mix.

Small fires in a beaker should be

- a. Extinguished with lots of water.
- b. Smothered with a watch glass.
- c. Smothered with your hands.
- d. Extinguished with alcohol.

Acid spills should be neutralized with

- a. Vinegar.
- b. Bicarbonate (baking soda).
- c. Salt.
- d. Sulfuric acid.

Reactions involving the liberation of poisonous or noxious gases should be carried out

- a. Only by an instructor, never a student.
- b. In a fume hood.
- c. By an open window.
- d. While holding your breath.

What should you do with excess or leftover chemical reagents after an experiment?

- a. Put them back in the bottle and recycle. You do not want to waste anything.
- b. Give them to the lab assistant to take care of.
- c. Through them in the trash can when no one is looking.
- d. Never return to the original bottle; dispose of it properly as indicated by your lab instructor.

Suppose you were weighing out some potassium carbonate and you spilled some of the solid chemical on your arm. What should you do?

- a. Panic. Scream for help. Call EMS.
- b. Nothing, because potassium carbonate is harmless.
- c. Wash with soap and water after you get back to your dorm room.
- d. Calmly walk to the sink, brush off excess with a paper towel, and rinse with copious amounts of water. When finished, inform your lab instructor.

Which of the following items would be considered necessary and appropriate attire for working in the lab.

- a. Pants with holes
- b. Short or long-sleeved shirts.
- c. Tank tops
- d. Pants
- e. Socks
- f. Sandals
- g. Shorts
- h. Closed-toed and closed-topped shoes
- i. Mid-length to short skirts

Question 12 True/False

All safety rules must be followed at all times.

TRUE

Question 13 True/False

Loose clothing or dangling jewelry are allowed while working in the lab.



Question 14 True/False

As long as you clean up spills yourself, your instructor doesn't need to know about it.

FALSE

Question 15 True/False

Accommodations are available for those that are disabled.

TRUE

Question 16 True/False

It is alright to eat and drink in the lab so long as it doesn't interfere with your experiment.



Question 17 True/False

Soap is necessary in rinsing off chemicals that you have spilled on exposed skin.



Question 18 True/False

When your experiment is done, you can leave lab because you have no other duties and responsibilities.

FALSE

Question 19 True/False

Take as much chemical as you want. There is plenty to go around. If you have extra, you can always put it back in the bottle.



Question 20 True/False

Do not switch lids to reagent bottles because doing so may result in cross-contamination.



Question 21 True/False

There are eyewash stations available in all teaching labs.

TRUE



Before opening a reagent bottle, read and <u>re-read</u> labels on the bottles to ensure you have the correct chemical.



When someone has been exposed to chemicals on their body or eyes, it is standard procedure to rinse the affected area with water for at least <u>fifteen</u> minutes.

When someone has been drenched with a chemical, he/she must go to the nearest <u>safety shower</u> and begin rinsing with water immediately.



If you are cut or burned in lab, let your instructor know so that he/she can use the <u>first-aid</u> kit to assist you.